

In the Thesis we study the Ornstein-Uhlenbeck Bridges. First, we recall the notion of the fractional Brownian motion and introduce stochastic integral of a deterministic function with respect to (fBm). We summarize the results on existence and uniqueness of a solutions to the autonomous linear stochastic differential equations that are called the Ornstein-Uhlenbeck processes. We introduce the concept of the Gaussian Bridge and we derive its representation, which we use for obtaining the formula for Ornstein-Uhlenbeck Bridge. The results are applied to some special examples. In the last part of the Thesis we mention a nonanticipative representation of the bridge.